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IN THE CLAIMS:

1.   (Canceled).

2.   (Currently amended)   A network relaying apparatus as claimed in claim [[1]] 4, wherein said network relaying apparatus is a LAN switch including a virtual LAN.

3.   (Currently amended)   A network relaying apparatus as claimed in claim [[1]] 4, wherein if the user authentication indicates the user is not correct for said network address, said packet communicating means operates to suppress the change of the content of said means for storing the correspondence information relating to the connecting state of said network terminal and discard the received packet having caused the change.

4.   (Currently amended)   A network relaying apparatus, as claimed in claim 1, comprising:

    a plurality of I/O ports adapted to be connected to respective network terminals;

    means for storing correspondence information indicating a correspondence between each of said I/O ports and a network

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address of each of said network terminals connected to each of

said I/O ports;

        means for storing user authentication information for

each of said network addresses;

        packet communicating means for transmitting and receiving

packets through said I/O ports;

        packet relaying means for determining a destination of

each packet received via said plurality of I/O ports on a

basis of the correspondence information held by said means for

storing the correspondence information, and for instructing

said packet communicating means to transmit said received

packets to the determined destination; and

        user authenticating means for determining correspondence

of user authentication information and network addresses on a

basis of the user authentication information stored in said

means for storing the authentication information,

        wherein said packet relaying means operates to learn

whether there is correspondence between an I/O port which has

received a packet and said source network address identified

in the packet on a basis of the source network address

contained in said received packet, request user authentication

information for a source network terminal having the source

network address if the change of the content of said means for

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storing the correspondence information relating to the

connecting state of the source network terminal is required by

said learned result, instruct said user authenticating means

to execute the user authentication for user authentication

information receeived in response to the request, and change

the content of said means for storing the correspondence

information and cause said received packet to be relayed to

the determined destination if the user is authenticated to be

correct, and

    wherein the user authentication information stored in

said means for storing user authentication information

contains a contact mail address of the concerned user, and

said user authenticating means operates to create a message

indicating that a packet having the incorrect user

authentication information has been received by the network

relaying apparatus if the user authentication information is

determined to be incorrect for said source network address as

a result of said user authentication, and to instruct said

packet communicating means to transmit said message to said

contact mail address of the concerned user.

    5.   (Currently amended)   A network relaying apparatus, as

~~claimed in claim 1, further comprising~~ comprising:

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a plurality of I/O ports adapted to be connected to
respective network terminals;

means for storing correspondence information indicating a
correspondence between each of said I/O ports and a network
address of each of said network terminals connected to each of
said I/O ports;

means for storing user authentication information for
each of said network addresses;

packet communicating means for transmitting and receiving
packets through said I/O ports;

packet relaying means for determining a destination of
each packet received via said plurality of I/O ports on a
basis of the correspondence information held by said means for
storing the correspondence information, and for instructing
said packet communicating means to transmit said received
packets to the determined destination; and

user authenticating means for determining correspondence
of user authentication information and network addresses on a
basis of the user authentication information stored in said
means for storing the authentication information,

wherein said packet relaying means operates to learn
whether there is correspondence between an I/O port which has
received a packet and said source network address identified

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in the packet on a basis of the source network address

contained in said received packet, request user authentication

information for a source network terminal having the source

network address if the change of the content of said means for

storing the correspondence information relating to the

connecting state of the source network terminal is required by

said learned result, instruct said user authenticating means

to execute the user authentication for user authentication

information received in response to the request, and change

the content of said means for storing the correspondence

information and cause said received packet to be relayed to

the determined destination if the user is authenticated to be

correct, and

    wherein said network relaying apparatus further comprises

means for storing a contact mail address of an administrator

of said network relaying apparatus, wherein said user

authenticating means operates to create a message indicating

that a packet having the incorrect user authentication

information has been received by the network relaying

apparatus if the user authentication is determined to be

incorrect for said source network address as a result of said

user authentication, and to instruct said packet communicating

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means to transmit said message to the contact mail address of

the administrator.

        6.   (Currently amended)   A network relaying apparatus as

claimed in claim [[1]] 4, wherein said network address is an

IP address.

        7.   (Currently amended)   A network relaying apparatus as

claimed in claim [[1]] 4, wherein said network relaying

apparatus communicates by using a mobile IP.

        8.   (Canceled).

        9.   (Currently amended)   A communication control method

as claimed in claim [[8]] 11, further comprising the steps of:

        if the correct user authentication information cannot be

obtained from said first network terminal, suppressing a

change of the content of said means for storing the

correspondence information and discarding said received

packet.

        10.   (Currently amended)   A communication control method

as claimed in claim [[9]] 11, further comprising the step of:

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if the correct user authentication information cannot be
obtained from said first network terminal, suppressing the
transfer of the packet at the I/O port having received said
packet.

11.   (Currently amended)   A communication control method
as claimed in claim 8, further comprising the steps of: in a
communications network system having plural network terminals
and a network relaying apparatus connected through a
communication path, said network relaying apparatus having a
plurality of I/O ports connected with said network terminals
and means for storing correspondence information relating to a
connecting state of each of said network terminals, said
correspondence information indicating correspondence between
each of said I/O ports and a network address of each of said
network terminals connected to said I/O ports, comprising the
steps of:

registering user authentication information with a
correspondence to each network address of each of said network
terminals;

receiving a packet transmitted by a first network
terminal through one of said I/O ports;

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if a source network address contained in said received

packet does not correspond to said one of said I/O ports in

the correspondence information stored in said means for

storing the correspondence information, updating a content of

said means for storing the correspondence information so that

said source network address corresponds to said one of said

I/O ports;

determining a destination of said received packet based

on the correspondence information and transmitting said

received packet to the determined destination;

when the content of said means for storing the

correspondence information is to be updated, requesting user

authentication information for said first network terminal,

for performing user authentication on a basis of the user

authentication information registered for each network address

if said source network address does not correspond to said

receive I/O port stored in said means for storing the

correspondence information, and changing the content of said

means for storing the correspondence information and

transmitting said received packet to the determined

destination if the correct user authentication information is

obtained;

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registering said user authentication information and a contact mail address of the concerned user for each network address; and

if the correct user authentication information cannot be obtained from said first network terminal, transmitting to a contact mail address, registered with a correspondence to said source network address, a message for indicating that a packet having incorrect user authentication information has been received.

12. (Currently amended) A communication control method ~~as claimed in claim 8, further comprising the steps of:~~ in a communications network system having plural network terminals and a network relaying apparatus connected through a communication path, said network relaying apparatus having a plurality of I/O ports connected with said network terminals and means for storing correspondence information relating to a connecting state of each of said network terminals, said correspondence information indicating correspondence between each of said I/O ports and a network address of each of said network terminals connected to said I/O ports, comprising the steps of:

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registering user authentication information with a

correspondence to each network address of each of said network

terminals;

receiving a packet transmitted by a first network

terminal through one of said I/O ports;

if a source network address contained in said received

packet does not correspond to said one of said I/O ports in

the correspondence information stored in said means for

storing the correspondence information, updating a content of

said means for storing the correspondence information so that

said source network address corresponds to said one of said

I/O ports;

determining a destination of said received packet based

on the correspondence information and transmitting said

received packet to the determined destination;

when the content of said means for storing the

correspondence information is to be updated, requesting user

authentication information for said first network terminal,

for performing user authentication on a basis of the user

authentication information registered for each network address

if said source network address does not correspond to said

receive I/O port stored in said means for storing the

correspondence information; and changing the content of said

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means for storing the correspondence information and
transmitting said received packet to the determined
destination if the correct user authentication information is
obtained;

    registering a contact mail address of an administrator of
said network relaying apparatus; and

    if the correct user authentication information cannot be
obtained from said first network terminal, transmitting to a
contact mail address of the administrator of said network
relaying apparatus a message indicating that a packet having
incorrect user authentication information has been received.

    13. (Currently amended) A communication control method
as claimed in claim [[8]] 11, wherein said network address is
an IP address.

    14. (Original) A communication control method as
claimed in claim 13, wherein said network relaying apparatus
is a LAN switch including a virtual LAN.

    15. (Original) A communication control method as
claimed in claim 14, wherein if the correct user
authentication information cannot be obtained from said first

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network terminal, a message indicating receipt of a packet

having incorrect user authentication information is

transmitted to all of the network terminals of the VLAN having

the network terminal that belongs to the source network

address of said received packet.

16.   (Currently amended)   A communication control method

as claimed in claim [[8]] 11, further comprising the steps of:

when determining a destination of said received packet,

if the correspondence between the destination network address

of said received packet and the I/O port needs the update of

the content of said means for storing the correspondence

information relating to a connecting state of said network

terminal, requesting user authentication information for the

network terminal of said destination network address for the

purpose of doing the user authentication on a basis of the

user authentication information registered for each network

address, updating the content of said means for storing the

correspondence information, and transmitting said received

packet if correct user authentication information can be

obtained.

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17.   (Currently amended)   A communication control method
as claimed in claim [[8]] 11, further comprising the step of:

requesting the user authentication information for each
network address held in said means for storing the
correspondence information, for the purpose of periodically
performing the user authentication on a basis of the user
authentication information registered for each network
address.

18.   (Currently Amended)   A program for controlling
communications in a communications network system having a
plurality of network terminals and a network relaying
apparatus through a communication path, said network relaying
apparatus having a plurality of I/O ports connected with said
network terminals and means for storing correspondence
information relating to a connecting state of each of said
network terminals, said correspondence information indicating
correspondence between each of said I/O ports and a network
address of each of said network terminals connected with said
I/O ports, said relaying apparatus operating to receive
packets transmitted by said network terminals through said I/O
ports, if a source network address contained in said received
packet does not correspond with said receive I/O port stored

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in said means for storing the <u>correspondence</u> information
~~relating to a connecting state of said network terminal~~,
update the content of said means for storing the
<u>correspondence</u> information ~~relating to a connecting state of
said network terminal~~ so as to make the correspondence
correct, determine a destination of said received packet on a
basis of the information stored in said means for storing the
<u>correspondence</u> information ~~relating to a connecting state of
said network terminal~~, and transmit said received packet, said
program containing a program code taking the steps of:

registering user authentication information ~~at the~~ <u>with a</u>
<u>correspondence to each</u> network address of each of said network
terminals; and

when updating a content of said means for storing the
<u>correspondence</u> information ~~relating to a connecting state of
said network terminal~~, if said source network address does not
correspond with said receive I/O port stored in said means for
storing the <u>correspondence</u> information ~~relating to a
connecting state of said network terminal~~, requesting user
authentication information for said first network terminal for
doing user authentication on a basis of the user
authentication information registered at said network address,
and changing a content of said means for storing the

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correspondence information ~~relating to a connecting state of~~
~~said network terminal~~ and transmitting said received packet if
the correct user authentication information can be obtained;

determining a destination of said received packet based
on the correspondence information and transmitting said
received packet to the determined destination;

when the content of said means for storing the
correspondence information is to be updated, requesting user
authentication information for said first network terminal,
for performing user authentication on a basis of the user
authentication information registered for each network address
if said source network address does not correspond to said
receive I/O port stored in said means for storing the
correspondence information, and changing the content of said
means for storing the correspondence information and
transmitting said received packet to the determined
destination if the correct user authentication information is
obtained;

registering said user authentication information and a
contact mail address of the concerned user for each network
address; and

if the correct user authentication information cannot be
obtained from said first network terminal, transmitting to a

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contact mail address, registered with a correspondence to said

source network address, a message for indicating that a packet

having incorrect user authentication information has been

received.

        19.   (Currently Amended)   A network relaying apparatus,

comprising:

        a plurality of I/O ports adapted to be connected to

respective network terminals having respective network

addresses;

        a relaying unit adapted to determine a destination of

each packet received by the network relaying apparatus via any

of said plurality of I/O ports;

        a first storage adapted to store a host table;

        an authenticating unit; and

        a second storage adapted to store an authentication

table;

        wherein, upon receipt by said network relaying apparatus

of a packet via one of said I/O ports, said relaying unit

refers to the host table to determine, based on information in

the host table, whether the packet should be relayed to the

determined destination;

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wherein, if said relaying unit determines that the packet
should be relayed to the determined destination, then the
relaying unit causes the packet to be relayed to the
determined destination;

wherein, if the relaying unit determines that the packet
should not be relayed to the determined destination, then the
relaying unit sends an inquiry to the authenticating unit;

wherein, upon receipt of the inquiry from the relaying
unit, said authenticating unit requests user authentication
information to determine, based on information in the
authentication table, whether the host table should be
rewritten;

wherein, if the authenticating unit determines that the
host table is to be rewritten, the authenticating unit
notifies the relaying unit of a rewrite enable, responsive to
which the relaying unit causes the host table to be rewritten
to include a correspondence between the I/O port that received
the packet and the network address of the network terminal
that sent the packet to the network relaying apparatus; ~~and~~

wherein if the authenticating unit determines that the
host table is not to be rewritten, the authenticating unit
notifies the relaying unit of a rewrite inhibit; and

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    wherein if the user authentication information is
determined to be incorrect for the network address of the
network terminal that sent the packet as a result of said user
authentication, said authenticating unit operates to cause a
message to be transmitted to a contact mail address of the
concerned user, the message indicating that a packet having
the incorrect user authentication information has been
received by the network relaying apparatus.

    20-22.   (Canceled).

    23.   (New)   A network managing method in a network system
which includes at least a network relaying apparatus having a
plurality of ports coupled to terminals through communication
lines, comprising the steps of:
    receiving, at a first port of the plurality of ports, a
first packet from the terminal;
    when a first IP address contained in the first packet
does not coincide with information stored in correspondence
with the first port, requesting the terminal to send a user
name and authentication information; and
    receiving a user name and authentication information sent
from the terminal in response to the request, and sending a

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message when it is determined that the user name and the

authentication information thus received do not correspond to

the first IP address.

24.   (New)   A network managing method according to Claim

23, wherein the message is sent to a mail address stored in

correspondence with the IP address.

25.   (New)   A network managing method according to Claim

23, wherein the message includes the user name.

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